

# Volume 33, 2001 LIST OF CONTENTS

### NUMBER 1

## Papers

Gunvor Gard and Glenn Lundborg	1
Cost-benefit analysis of road safety measures: applicability and controversies Rune Elvik	9
Permanent impairments, disabilities and disability pensions related to accidents in Norway Johan Lund and Tor Bjerkedal	19
The role of driver sleepiness in car crashes: a systematic review of epidemiological studies Jennie Connor, Gary Whitlock, Robyn Norton and Rod Jackson	31
The evaluation of effects on driver behavior and accidents of concentrated general enforcement on interurban roads in Israel	
A.S. Hakkert, V. Gitelman, A. Cohen, E. Doveh and T. Umansky	43
Shoulder belts in motor vehicle crashes: a statewide analysis of restraint efficacy Stacey Knight, Lawrence J. Cook, Patricia J. Nechodom, Lenora M. Olson, James C. Reading and J. Michael Dean	65
The effect of traffic policing on road safety in Israel Michael Beenstock, Dalit Gafni and Ephraim Goldin	73
The Western Australian Road Injury Database (1987–1996): ten years of linked police, hospital and death records of road crashes and injuries	
Diana L. Rosman	81
Extended time-to-collision measures for road traffic safety assessment Michiel M. Minderhoud and Piet H.L. Bovy	89
The effect of ice warning signs on ice-accident frequencies and severities  Jodi Carson and Fred Mannering	99
Self-reports of safe driving behaviors in relationship to sex, age, education and income in the US adult driving population	
David Shinar, Edna Schechtman and Richard Compton	111

Changes in young adult offense and crash patterns over time Patricia F. Waller, Michael R. Elliott, Jean T. Shope, Trivellore E. Raghunathan and Roderick J.A. Little	117
The effect of medical care by a helicopter trauma team on the probability of survival and the quality of life of hospitalised victims  Siem Oppe and Frank Th. De Charro	129
Short communications	
The validity of self-reported seatbelt use: Hispanic and non-Hispanic drivers in El Paso Mario A. Parada, Lawrence D. Cohn, Eugenia Gonzalez, Theresa Byrd and Miguel Cortes	139
Difficulties in estimating air bag effectiveness Peter Cummings	145
NUMBER 2	
Papers  Road accidents in Slovenia involving a pedestrian, cyclist or motorcyclist and a car	
Marjan Simončič	147
An evaluation of a suburban railway pedestrian crossing safety programme Brenda Lobb, Niki Harre and Thomas Suddendorf	157
Age and gender patterns in motor vehicle crash injuries: importance of type of crash and occupant role Dale R. Tavris, Evelyn M. Kuhn and Peter M. Layde	167
Pedestrian fatalities and alcohol Mats Öström and Anders Eriksson	173
Variations of the level of vigilance and of behavioural activities during simulated automobile driving Joceline Rogé, Thierry Pebayle and Alain Muzet	181
Fatal traffic accidents among trailer truck drivers and accident causes as viewed by other truck drivers Helinä Häkkänen and Heikki Summala	187
Multiple state hazard models and workers' compensation claims: an examination of workers compensation data from Ontario	10=
Michele Campolieti	197
Factors associated with parental safe road behaviour as a pedestrian with young children in metropolitan New South Wales, Australia	***
Lawrence T. Lam	203
A linkage study of Western Australian drink driving arrests and road crash records Diana L. Rosman, Anna M. Ferrante and Yuval Marom	211
Novice drink drivers, recidivism and crash involvement Anna M. Ferrante, Diana L. Rosman and Yuval Marom	221
Relationship of parent driving records to the driving records of their children Susan A. Ferguson, Allan F. Williams, Janella F. Chapline, Donald W. Reinfurt and Doreen M. De Leonardis	229
Restraint use patterns for older child passengers in Michigan	
David W Fly Lidia P Kostyniuk and Ionathon M Vivoda	225

Volume	32	Contents !	Accident	Analysis a	nd Prevention	33	(2001)	111_	VIII

Are aggressive people aggressive drivers? A study of the relationship between self-reported general aggressiveness, driver anger and aggressive driving Timo Lajunen and Dianne Parker	243
Thio Edjatell and Diante Parket	243
Effects of low-dose alcohol exposure on simulated merchant ship piloting by maritime cadets  Jonathan Howland, Damaris J. Rohsenow, Jennifer Cote, Brian Gomez, Thomas W. Mangione and Angela K. Laramie	257
Accident prototypical scenarios, a tool for road safety research and diagnostic studies Dominique Fleury and Thierry Brenac	267
The relative effectiveness of a hidden versus a visible speed camera programme Michael D. Keall, Lynley J. Povey and William J. Frith	277
Short communication	
Passengers' injuries reflected carriage interior at the railway accident in Mundelstrup, Denmark Lars Bo Ilkjær and Tyge Lind	285
NUMBER 3	
Papers	
Relationships between seat properties and human subject kinematics in rear impact tests Judson B. Welcher and Thomas J. Szabo	289
Experimental analysis of a new flexible neck model for low-speed rear-end collisions Hiroaki Yoshida and Sadami Tsutsumi	305
Developing measures of fatigue using an alcohol comparison to validate the effects of fatigue on performance Ann M. Williamson, Anne-Marie Feyer, Richard P. Mattick, Rena Friswell and Samantha Finlay-Brown	313
Area-wide urban traffic calming schemes: a meta-analysis of safety effects Rune Elvik	327
How do prolonged wakefulness and alcohol compare in the decrements they produce on a simulated driving task?  J. Todd Arnedt, Gerald J.S. Wilde, Peter W. Munt and Alistair W. MacLean	337
Bicycle helmet efficacy: a meta-analysis R.G. Attewell, K. Glase and M. McFadden	345
Under-reporting of motor vehicle traffic crash victims in New Zealand Jonathan Alsop and John Langley	353
New evidence concerning fatal crashes of passenger vehicles before and after adding antilock braking systems Charles M. Farmer	361
A statistical model to compare road mortality in OECD countries Yves Page	371
Predicting performance of annual safety outcomes Jagadish Guria and Kelly Mara	387

The crash reduction effectiveness of a network-wide traffic police deployment system Stuart V. Newstead, Maxwell H. Cameron and L. Mark W. Leggett

393

Partners for child passenger safety: a unique child-specific crash surveillance system Dennis R. Durbin, Esha Bhatia, John H. Holmes, Kathy N. Shaw, John V. Werner, Wayne Sorenson and Flaura K. Winston	407
Factors related to driving difficulty and habits in older drivers Jacquelyn M. Lyman, Gerald McGwin Jr and Richard V. Sims	413
Secular trends of motor vehicle mortality in the United States, 1910–1994 Guohua Li, Cyrus Shahpar, Jurek George Grabowski and Susan P. Baker	423
NUMBER 4	
Papers	
Freeway management systems and motor vehicle crashes: a case study of Phoenix, Arizona Todd Olmstead	433
The epidemiology of traumatic injury-related fetal mortality in Pennsylvania, 1995–1997: the role of motor vehicle crashes	
Harold B. Weiss	449
Public beliefs about the preventability of unintentional injury deaths Deborah C. Girasek	455
Preventability of vehicle-related fatalities ElsMarie Henriksson, Mats Öström and Anders Eriksson	467
Firearm availability and unintentional firearm deaths Mathew Miller, Deborah Azrael and David Hemenway	477
Roadway safety in rural and small urbanized areas Paul J. Ossenbruggen, Jyothi Pendharkar and John Ivan	485
Pickup truck use in the National Personal Transportation Survey Craig L. Anderson, Phyllis F. Agran and Diane G. Winn	499
Evaluation of the effects of North Carolina's 0.08% BAC law Robert D. Foss, J. Richard Stewart and Donald W. Reinfurt	507
The effects of driving cessation on the elderly with dementia and their caregivers Brian D. Taylor and Sophia Tripodes	519
Assessment of hospital and police ascertainment of automobile versus childhood pedestrian and bicyclist collision Preet K. Dhillon, Amy S. Lightstone, Corinne Peek-Asa and Jess F. Kraus	ns 529
In-vehicle distraction and fatal accidents in England and Wales Alan Stevens and Roy Minton	539
Causal models for road accident fatalities in Yemen Jamal R.M. Ameen and Jamil A. Naji	547
Short communication	
Safety and ergonomics evaluation of hybrid systems in Hong Kong	
Alan H.S. Chan and Alan J. Courtney	563

#### Erratum

Erratum to "Exploration of the barriers to bicycle helmet use among 12 and 13 year old children" [Accident Analysis and Prevention 32 (2000) 111-115]

#### 567

#### NUMBER 5

#### Papers

- The effects of introducing or lowering legal per se blood alcohol limits for driving: an international review
  Robert E. Mann, Scott Macdonald, Gina Stoduto, Susan Bondy, Brian Jonah and Abdul Shaikh
  569
- Do speed bumps really decrease traffic speed? An Italian experience

  Massimiliano Pau and Silvano Angius

  585
- Evaluation of inter-organizational traffic injury prevention in a WHO safe community

  Kent Lindqvist, Toomas Timpka and Lothar Schelp

  599
- Predicting repeat DUI offenses with the alcohol interlock recorder
  Paul R. Marques, A. Scott Tippetts, Robert B. Voas and Douglas J. Beirness
  609
- The development of a test specification to determine the rollover protection of passengers in light commercial vehicles fitted with canopies
- E.J. Honiball and J.L. van Niekerk 621
- Drivers' biased perceptions of speed and safety campaign messages

  D. Walton and P.C. McKeown

  629
- Helmet laws and motorcycle rider death rates
  Charles C. Branas and M. Margaret Knudson
  641
- Adolescent antecedents of high-risk driving behavior into young adulthood: substance use and parental influences
- Jean T. Shope, Patricia F. Waller, Trivellore E. Raghunathan and Sujata M. Patil

  The influence of demographic factors on seatbelt use by adults injured in motor vehicle crashes
- E. Brooke Lerner, Dietrich V.K. Jehle, Anthony J. Billittier IV, Ronald M. Moscati, Cristine M. Connery and Gregory Stiller 659
- Explaining national road fatalities
  Christo J. Bester
  663
- Factors contributing to the amount of vehicular damage resulting from collisions between four-wheel drive vehicles and passenger cars

  Robert W. Broyles, S. Ross Clarke, Lutchmie Narine and Daryl R. Baker

  673
- Sensation seeking, risky driving and behavioral adaptation
  Brian A. Jonah, Rachel Thiessen and Elaine Au-Yeung
  679

#### Short communications

- Putting head restraints to rest
  Robert Ferrari 685
- Changes in head injury with the New Zealand bicycle helmet law
  D.L. Robinson
  687

## Viewpoints

Introduction to Viewpoints	
Frank A. Haight	693
Viewpoint	
Frank A. Haight	693
Bibliographic section	697
NUMBER 6	
Papers	
Cannabis use and traffic accidents in a birth cohort of young adults David M. Fergusson and L. John Horwood	703
Mechanical failures as a contributing cause to motor vehicle accidents — South Africa Ockert van Schoor, Johannes L. van Niekerk and B. Grobbelaar	713
A simple method for identifying and correcting crash problems on urban arterial streets Richard A. Retting, Helen B. Weinstein, Allan F. Williams and David F. Preusser	723
A nationwide survey of self-reported red light running: measuring prevalence, predictors, and perceived consequences Bryan E. Porter and Thomas D. Berry	735
Analysis of progress in road safety in ten European countries S. Lassarre	743
Protecting the child's abdomen: a retractable bicycle handlebar Kristy B. Arbogast, Jeremy Cohen, Luis Otoya and Flaura K. Winston	753
Novice drivers' accidents and violations — a failure on higher or lower hierarchical levels of driving behaviour Sirkku Laapotti, Esko Keskinen, Mika Hatakka and Ari Katila	759
Alcohol/drug abuse, driving convictions, and risk-taking dispositions among trauma center patients Carl A. Soderstrom, Michael F. Ballesteros, Patricia C. Dischinger, Timothy J. Kerns, Robert D. Flint and Gordon S. Smith	771
Costs of alcohol-related crashes: New Zealand estimates and suggested measures for use internationally Ted R. Miller and Michael Blewden	783
Long-term effects of legislation and local promotion of child restraint use in motor vehicles in Sweden R. Ekman, G. Welander, L. Svanström and L. Schelp	79:
Overdispersion in modelling accidents on road sections and in Empirical Bayes estimation Ezra Hauer	79
Predicting at-fault car accidents of older drivers Rudi De Raedt and Ingrid Ponjaert-Kristoffersen	80
Predicting ambulatory function following lower extremity trauma using the functional capacity index Melissa L. McCarthy and Ellen J. MacKenzie	82

